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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,763	01/21/2005	Bernd Rudiger Stober	W1.1931 PCT-US	4037

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06/07/2007

EXAMINER

AKANBI, ISIAKA O

ART UNIT	PAPER NUMBER
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2886

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,763

Applicant(s)

STOBER, BERND RUDIGER

Examiner

Isiaka O. Akanbi

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14, 16-25, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 16-25, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02 May 2007 has been entered. Claims 26-27 are cancelled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 14 and 16-25 and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (2001/0030744 A1).

Regarding to claims 14, Chang discloses a device/method for inspecting a printed product including image information comprising of the following:

- a single sensor device (44)(fig. 5),
- an illumination device (36/38/40/42)(fig. 5),
- at least first (36) and second light sources (38) in said illumination device,
- a first inspection light emission of a first color emitted by said first light source and
- a second inspection light emission of a second color emitted by said second light source,

said first inspection light color and said second inspection light color being different from each other (i.e. any wavelengths)(see abstract))(pars. 0026, 0047),

at least first and second separate color channels in said single sensor device (par. 0047), each of said at least first and second separate color channels each being matched to a separate one of said first and second inspection light emissions from said first and second light sources, said at least first and second separate color channels each being adapted to receive a separate one of said first and second inspection light emissions that are being one of passed through (par. 0020), and reflected by said printed product (i.e. semiconductor wafer) including said image information (pars. 0061, 0063), each of said at least first and second separate color channels in said single sensor being adapted to record a separate one of said first and second inspection light emissions (figs. 5 and 10)(pars. 0036, 0047, 0052 and 0057-58),

an evaluation device (46) adapted to separately process said image information of each of said at least first and second inspection light emissions received at said separate ones of said first and second color channels in said single sensor device (pars. 0048) and a sensing system that support inspection of printed product (i.e. semiconductor wafer)(par. 0061).

As to claim 16, according to claim 14, Chang further discloses that each of said at least first and second inspection light emissions are a substantially monochrome light color (pars. 0008-0009 and 0046-0050)(figs. 5-6)

As to claim 17, Chang also discloses that the at least one of said emission's color and said emission's bandwidth of each said inspection light is matched (i.e. filter) to a transmission curve of said sensor device (pars. 0010, 0031, 0036, 0047-48 and 0057-58).

As to claims 18-19, Chang further discloses a sensor device that is a color line camera and is a CCD camera (pars. 0047 and 0057-58).

As to claim 20, Chang discloses the limitation wherein said sensor device (52) has first, second and third separate color channels, wherein said illumination device has first (36), second (38) and third light sources (40) and wherein each of said first, second and third light sources emits a separate one of first, second and third inspection light emissions, which first, second and third inspection light emissions are matched to properties of said first, second and third separate color channels (i.e. red, green and blue)(see abstract)(pars. 0047 and 0057)(fig. 5).

As to claims 21-22, Chang also discloses that said at least first (36) and second (38) light source are arranged at first and second different positions relative to the material and are each displaceable (fig. 5)

As to claims 23 and 24, Chang also discloses that at least one of said at least first and second inspection light emissions passes through said printed product material and another of

said at least first and second inspection light emissions is reflected by said printed product and wherein at least one of said at least first and second inspection light emissions is reflected by said printed product at a first angle and at least a second one of said at least first and second inspection light emissions is reflected by said printed product at a second angle (fig. 5)(see abstract)(pars. 0008 and 0016).

Regarding to claims 25, Chang discloses a method for inspecting a printed product including image information comprising of the following:

providing a single sensor device (44), providing an illumination device (16/36/38/40/42), providing at least first (36) and second light sources (38) in said illumination device, directing first, second and third inspection light emissions from said first (36), second (38) and third light sources (40), each of said first, second and third inspection light emissions having a separate one of first, second and third differently colored light emissions, providing at least first, second and third separate color channels in said sensor device, matching said at least first, second and third separate color channels in said single sensing device (44) and being matched to said first, second, and third inspection light emissions (i.e. red, green and blue)(see abstract)(par. 0047), providing an evaluation unit (54) for separately evaluating each of said first, second and third separate color channels of said single sensor device (par. 0048),

reflecting a first one of said inspection light emissions, at a surface of said printed product, from said first light source (36) to said first separate color channel of said single sensor device; reflecting a second one of said inspection light emissions, at a surface of said printed product, from said second separate light source (38) to said second separate color channel of said single sensor device,

passing a third one of said inspection light emissions through said printed product from said third light source (40) to said third separate color channel of said single sensor device (44)(par.0047-0048) and using said first and said second reflected inspection light emissions and said third passed through inspection light emission for simultaneously and separately performing two incident light inspections and one transmitted light inspection on said printed product including image information (see abstract)(par. 0041)(fig. 5).

Regarding to claims 28, Chang discloses an optical quality sensing system for inspecting a printed product including image information and having a first surface opposing a second surface comprising of the following:

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(a) a support adapted to orient and position (i.e. printed product) for inspection of said image information, said support including a light (40) transmissive region (fig. 5)(par. 0046), (b) a first inspection light source (36) emitting light having a first color (i.e. red) component said first inspection light source being positioned to emit first light emissions onto said printed product's first surface, (c) a second inspection light source (38) emitting light having a second color (i.e. green) component, said second inspection light source being positioned to emit second light emissions onto said printed product's first surface, (d) a third inspection light source (40) emitting light having a third color (i.e. blue) component, said third inspection light source being positioned to emit third light emissions through said support's light transmissive region and onto said printed product's second surface (fig. 5), (e) a single light sensor (44) adapted to separately sense and evaluate said first, second and third light emissions in said first color component, said second color component and said third color component, said single light sensor being positioned proximate said printed product's first surface and having first, second and third color channels, wherein said first color component, said second color component and said third color component may be combined or superimposed to generate a composite light emission having any color in the visible light spectrum, including white light (i.e. any wavelength)(see abstract)(par. 0047), (f) said single light sensor (44) being configured to receive said first light (36) emissions as reflected from said printed product's first surface, and to generate a first light inspection signal in response thereto, (g) said single light sensor (44) being configured to receive said second light (38) emissions as reflected from said printed product's first surface, and to generate a second light inspection signal in response thereto and (h) said light sensor being configured to receive said third light (40) emissions as transmitted through said printed product's and emitted from said first surface, and to generate a third light inspection signal in response thereto (figs. 5 and 6).

As to claim 29, Chang also discloses that said first color component is selected from a group comprising red, green and blue (pars. 0047, 0052).

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed in the attached form PTO-892 teach of other prior art

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device/method for inspecting a printed product including image information that may anticipate or obviate the claims of the applicant's invention.

Response to Arguments

In response to Applicant's arguments see pages 10-20, filed on 02 May 2007, with respect to the rejection(s) of claim(s) 14 and 16-29 under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of claim amendments.

Conclusion

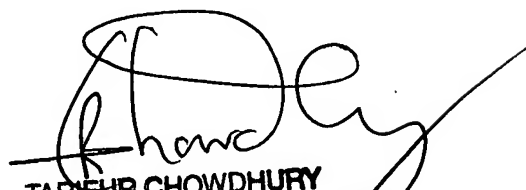
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on (571) 272-2287. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi

May 18, 2007


TARIFUR CHOWDHURY
SUPERVISORY PATENT EXAMINER